

REMARKS

Claims 13-20 are pending in this application. By this Amendment, the specification and Abstract are amended to correct informalities. No new matter is added. Reconsideration in view of the above amendments and following remarks is respectfully requested.

The Office Action rejected claims 13-20 under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the enablement requirement. More particularly, the Office Action states that the specification allegedly “fails to describe the spatial coherency (SC) in such a way as to enable one skilled in the art to which it pertains, or which it is most nearly connected, to make and/or use the invention.” The Office Action then objects to certain variables used to define the spatial coherency (SC), and alleges that the variables are not described in such a way as to enable one skilled in the art to make and/or use the invention. The rejection is respectfully traversed.

Spatial coherency (SC) in the context of the invention and each of the variables objected to by the Examiner are explained below. The below explanation is provided merely to assist the Examiner in his understanding of the invention and should not be construed as limiting the claims in any way. One of ordinary skill in the art would recognize that the below explanation is but one way of determining spatial coherency.

First, assume the following conditions for the purpose of the following explanation of the variables. A certain region, R, is defined within an image (=I). For example, the region R can be a car, a person, or another meaningful part of the image. Given region R, several dominant colors, C1, C2,...Ci, are defined which are the most visually dominant colors of the R. For

example, if region R represents a blue monster wearing red pants in a scary monster picture (=I), two dominant colors, "blue"(C1) and "red"(C2) can be defined and all other miscellaneous colors shown as hairy things, dirt in the body, etc., may be ignored. The spatial coherency (SC) may be determined for region R using the following variables.

The variable COH_Ci represents the per-dominant color coherency of color Ci as defined on page 9, line 1 of the present application. This variable represents the coherency value of a given color Ci, where Ci is a dominant color in a certain region (R) within an image (I).

This value depends on how the color Ci is shown in the region R. For instance, if the color Ci is somehow spread out (e.g., even mixed with other colors) in the region R, then the value of COH_Ci is a low figure; otherwise, if the color Ci is spatially isolated in the region R, the value is a high figure.

The variable VISITED_PELp represents a boolean variable, which can be either "TRUE" or "FALSE", for each pixel in the region R, where p = 1,2,...the number of pixels in the region R. This variable represents the answer of the question "Have we ever visited this pixel?". If the answer is "Yes", VISITED_PELp is set as "TRUE"; otherwise, "FALSE".

The variable TOTAL_NUM_COHERENT represents the total number of coherent pixels. This variable is counted by summing up the number of color similarity matches for all pixels in the region R. The color similarity match for a pixel is between the pixel and its surrounding pixels defined by a CCM (coherency checking mask). In the example discussed in

the specification at page 9, lines 16-17, the CCM is a square mask having a 3 by 3 lattice. Other shape and size masks are also permissible, such as a square mask having a 5 by 5 lattice.

The variable COLOR_OF_MASKED_PIXEL_k represents the color of pixel _k when the pixel _k is masked by a CCM. The color may be represented by R,G,B values.

The variable TOTAL_NUM_COHERENT++ represents TOTAL_NUM_COHERENT = TOTAL_NUM_COHERENT + 1. That is, the variable TOTAL_NUM_COHERENT is updated by adding 1. The notation utilized is a C programming notation. Merely to clarify the specification, the phrase "they are increased by TOTAL_NUM_COHERENT++" at page 9, line 25-page 10, line 1 has been amended to recite "the value of TOTAL_NUM_COHERENT is increased by 1."

VISITED_PEL_p = FALSE means that the boolean variable of VISITED_PEL_p is set to "FALSE". The boolean variable must be "TRUE" or "FALSE". That is, "VISITED_PEL_p == FALSE" means that the current setting value of VISITED_PEL_p is "FALSE".

As indicated at page 9, lines 16-23, 1) for each pixel PEL_j in the region R, if the relation Ci==COLOR_OF_PEL_j & VISITED_PEL_j == FALSE is satisfied, the VISITED_PEL_j is TRUE (i.e., VISITED_PEL_j=TRUE), and the COUNT_PELS_Ci is increased by 1 (i.e., COUNT_PELS_Ci=COUNT_PELS_Ci+1). 2) The pixel PEL_j is then adjusted to be the center of the CCM for following operations.

The first sentence 1) means that all pixels in the region R are such that the color of pixels is color Ci. To select such pixels, each pixel is visited once only to check the color of the pixel. To remember whether pixels have already been visited or not, the boolean variable

VISITED_PELj is used, which is a memory device. VISITED_PELj is first set to "FALSE." Once the pixel is visited, the value is changed to "TRUE" so the pixel is not visited again.

The second sentence means that the CCM is placed on the pixel PELj such that the center of CCM is adjusted to correspond to the pixel PELj. After that, operations are performed to check the colors of the surrounding pixels. The surrounding pixels are determined based on the size of the CCM. For example, if CCM is a 3 by 3 lattice, 8 adjacent pixels are checked. If CCM is a size of 5 by 5, the 24 adjacent pixels are checked. The size of CCM is usually an odd number by an odd number.

If all the pixels are the same color Ci, the variable TOTAL_NUM_COHERENT is updated by adding 1. The variable TOTAL_NUM_COHERENT is then utilized to calculate COH_Ci, which is then utilized to calculate the spatial coherency (SC), as indicated in the specification.

Accordingly, the rejection under 35 U.S.C. §112, first paragraph, is obviated and should be withdrawn.

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, Carol L. Druzbick, at the telephone number listed below.

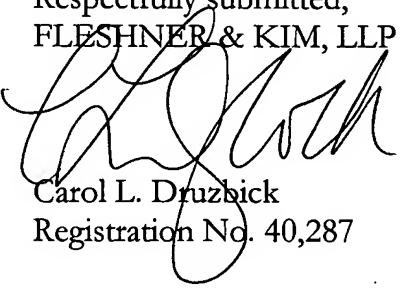
To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this,

Serial No. 10/050,148
Reply to Office Action dated June 17, 2005

Docket No. HI-0072

concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and
please credit any excess fees to such deposit account.

Respectfully submitted,
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